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(21) International Application Number: PCT/GB99/02510 (22) International Filing Date: 30 July 1999 (30.07.99) (30) Priority Data: 9817552.4      13 August 1998 (13.08.98)      GB 9904232.7      25 February 1999 (25.02.99)      GB (71) Applicant (for all designated States except US): WHITLAND RESEARCH LIMITED [GB/GB]; Whitland Abbey, Whitland, Dyfed SA34 0LG (GB). (72) Inventor; and (75) Inventor/Applicant (for US only): PARKER, Dawood [GB/GB]; Whitland Abbey, Whitland, Dyfed SA34 0LG (GB). (74) Agent: GILHOLM, Steve; Harrison Goddard Foote, Belmont House, 20 Wood Lane, Leeds LS6 2AB (GB).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  Published <i>Without international search report and to be republished upon receipt of that report.</i>	
(54) Title: OPTICAL DEVICE			
<p>The diagram illustrates an optical device for measuring blood oxygen saturation. It shows a cross-section of skin with two layers: the Epidermis and the Dermis. A light beam is emitted from a lamp, passes through transmitting fibers, and is reflected by a mirror. The beam then passes through the skin, which is divided into the epidermis and dermis layers. The beam is absorbed and scattered within the dermis. Receiving fibers collect the light and pass it to a photometer.</p>			
(57) Abstract  There is described a sensor device which comprises light source means for emitting a light beam, photodetector means for receiving the light beam after passing through or being reflected within living tissue and arranged to provide signals corresponding to the intensities of the respective wavelength of light received by the photodetector means characterised in that the sensor device measures blood oxygen saturation. The device can be used in conjunction with a conventional pulse oximeter. There is also described a method of measuring blood oxygen saturation.			